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EXAMINER	
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ART UNIT	PAPER NUMBER
2419	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/822,668	KIMURA ET AL.	
	Examiner	Art Unit	
	VENKATESH HALIYUR	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *106/03/2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27 (calims 2,6,11,15,20,24 are canceled)* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5,7-10,12-14,16-19,21-23,25-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed on 06/03/2009 has been considered. However amendments necessitated new ground(s) of rejection using a newly found reference. Therefore the finality of the office action communicated via previous office action has been withdrawn. Rejection follows.

2. Claims 1-27 is pending in the application. Claims 2, 6, 11, 15, 20, 24 are canceled.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1,3-5,7-10,12-14,16-19,21-23,25-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In independent claims 1,10,19, the limitation as recited (reproduced herewith) "wherein, when a packet is transmitted from a first device on the ATM network side to a second device on said ATM network side, a loop-back transmission mode is set to said packet to be received by said second device; and wherein, when a packet is transmitted by a broadcast method from a first device on said

layer 2 network side to a device on said ATM network side, a loop-back transmission mode is set to said packet to be received by a second device on said ATM network side" does not clearly define the condition of when a loop-back transmission mode is not set", because the limitations as presented appears to indicate that a loop-back transmission mode is always set irrespective of using a broadcast method or not and therefore is indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is also insufficient antecedent basis in claims 1, 10, 19 in the limitation (as underlined) "wherein, when a packet is transmitted by a broadcast method from a first device on said layer 2 network side to a device on said ATM network side, a loop-back transmission mode is set to said packet to be received by a second device on said ATM network side.

Therefore appropriate corrections are required to independent claims 1, 10, 19 and dependent claims 3-5, 7-9, 12-14, 16-18, 21-23, 25-27.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1,3-5,7-8,10,12-14,16-17,19,21-23,25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burwell et al [US Pat: 5,818,842] in view of Oohashi et al. [US Pub: 2001/0021173].

Regarding claim 1, Burwell et al in their invention of "Transparent Interconnector of LANs by an ATM Network" disclosed an ATM (Asynchronous Transfer Mode) bridge device **(item 6 of Fig 1)** to which an ATM network **(items 1a-1c of Fig 1)** and a layer 2 network **(items 9-11,14 of Fig 1)** are connected **(col 4, lines 22-38)**, comprising: a first learning unit **(server, item 4 of Fig 4)** item to learn a transmitter address of a packet input from said ATM network and information about a transmission path through which said packet had been transmitted and to judge a destination of said packet based on a result from the learning **(col 4, lines 49-61)**, a second learning unit **(ridge, item 6 of Fig 1)** to learn a transmitter address of a packet input from said ATM network and information about a transmission path to which said packet is to be output **(col 7, lines 29-34)**; and a packet scrapping judging unit to compare said transmitter address of said packet input from said ATM network and information about said transmission path through which said packet had been transmitted with said transmitter address of said packet learnt by said second learning unit and information about said transmission path to which said packet is to be output **(ridge packet filtering, item 6 of Fig 1, col 8, lines 15-24)**, wherein, when a packet is transmitted from a first device on the ATM network side to a second device on said ATM network side **(communication between ATM user devices, col 3, lines 6-25),** a loop-back transmission mode is set to said packet to be received by said second device **(Loopback type code set in the cells, col 6, lines**

32-44), wherein, when a packet is transmitted by a broadcast method from a first device **(broadcast server, col 5, lines 4-16)** on said layer 2 network side **(Ethernet side, item 23 of Fig 4, col 3, lines 11-25)** to a device on said ATM network side, a loop-back transmission mode is set to said packet to be received by a second device on said ATM network side **(col 3, lines 17-25,col 9, lines 35-54)**. Burwell disclosed a method for verifying the source address, destination address and the protocol type of the packet to either drop or forward the packet at the ridge **(col 8, lines 25-31, col 11 lines 50-60, col 12, lines 6-15)**, but fails to disclose if said transmitter address of said packet input from said ATM network and information about said transmission path through which said packet had been transmitted are matched with said transmitter address of said packet learnt by said second learning unit and information about said transmission path to which said packet is to be output, to scrap said packet. However Oohashi et al. disclosed a method for comparing the address of a packet received from a first routing station **(item 8 of Fig 1)** and information about the transmission path **(item 12 of Fig 1)** through which packet had been transmitted are matched learnt and matched by the second routing station **(item 9 of Fig 1)** to either discard or receive the packet **(routing decisions made by the judging means and loop-back mode set to ON/OFF, item 1 of Fig 1, para 0039-0044 and 0050-0054, Figs 1-4).** Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of comparing the address of a packet received from a first routing station and information about the transmission path through which packet had been transmitted are matched and learnt by the second routing station to either drop or

forward the packets arriving at the bridge device as taught by Oohashi et al in the system of Burwell et al to verify if said transmitter address of said packet input from said ATM network and information about said transmission path through which said packet had been transmitted are matched with said transmitter address of said packet learnt by said second learning unit and information about said transmission path to which said packet is to be output, to scrap said packet. One is motivated as such in order to improve the performance of the ATM bridge device for transmitting packets over WAN network by comparing the address of a packet received from a first routing station and information about the transmission path through which packet had been transmitted are matched and learnt by the second routing station to control the packets arriving at the bridge device.

Regarding claim 10, Burwell et al disclosed a loop detecting method for detecting loop formed in an ATM bridge device **(item 6 of Fig 1/Fig14, col 6, lines 45-54)** to which an ATM network **(items 1a-1c of Fig 1)** and a layer 2 network **(items 9-11,14 of Fig 1)** are connected **(col 4, lines 22-38)**, comprising: a first learning step **(server, item 4 of Fig 4)** item to learn a transmitter address of a packet input from said ATM network and information about a transmission path through which said packet had been transmitted and to judge a destination of said packet based on a result from the learning **(col 4, lines 49-61)**, a second learning step **(ridge, item 6 of Fig 1)** to learn a transmitter address of a packet input from said ATM network and information about a transmission path to which said packet is to be output **(col 7, lines 29-34)**; and a packet scrapping judging step to compare said transmitter address of said packet input from

said ATM network and information about said transmission path through which said packet had been transmitted with said transmitter address of said packet learnt by said second learning step and information about said transmission path to which said packet is to be output **(ridge packet filtering, item 6 of Fig 1, col 8, lines 15-24).** Burwell disclosed a method for verifying the source address, destination address and the protocol type of the packet to either drop or forward the packet at the ridge **(col 8, lines 25-31, col 11 lines 50-60, col 12, lines 6-15)** and further disclosed wherein, when a packet is transmitted from a first device on the ATM network side to a second device on said ATM network side **(communication between ATM user devices, col 3, lines 6-25),** a loop-back transmission mode is set to said packet to be received by said second device **(Loopback type code set in the cells, col 6, lines 32-44)** and wherein, when a packet is transmitted by a broadcast method from a first device **(broadcast server, col 5, lines 4-16)** on said layer 2 network side **(Ethernet side, item 23 of Fig 4, col 3, lines 11-25)** to a device on said ATM network side, a loop-back transmission mode is set to said packet to be received by a second device on said ATM network side **(col 3, lines 17-25,col 9, lines 35-54)**, but fails to disclose if said transmitter address of said packet input from said ATM network and information about said transmission path through which said packet had been transmitted are matched with said transmitter address of said packet learnt by said second learning step and information about said transmission path to which said packet is to be output, to scrap said packet. However Oohashi et al. disclosed a method for comparing the address of a packet received from a first routing station **(item 8 of Fig 1)** and information about the transmission path

(item 12 of Fig 1) through which packet had been transmitted are matched learnt and matched by the second routing station **(item 9 of Fig 1)** to either discard or receive the packet **(routing decisions made by the judging means and loop-back mode set to ON/OFF, item 1 of Fig 1, para 0039-0044 and 0050-0054, Figs 1-4).** Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of comparing the address of a packet received from a first routing station and information about the transmission path through which packet had been transmitted are matched and learnt by the second routing station to either drop or forward the packets arriving at the bridge device as taught by Oohashi et al in the system of Burwell et al to verify if said transmitter address of said packet input from said ATM network and information about said transmission path through which said packet had been transmitted are matched with said transmitter address of said packet learnt by said second learning unit and information about said transmission path to which said packet is to be output, to scrap said packet. One is motivated as such in order to improve the performance of the ATM bridge device for transmitting packets over WAN network by comparing the address of a packet received from a first routing station and information about the transmission path through which packet had been transmitted are matched and learnt by the second routing station to control the packets arriving at the bridge device.

Regarding claim 19, Burwell et al disclosed an ATM (Asynchronous Transfer Mode) bridge device **(item 6 of Fig 1)** to which an ATM network **(items 1a-1c of Fig 1)** and a layer 2 network **(items 9-11,14 of Fig 1)** are connected **(col 4, lines 22-38)**,

comprising: a first learning means **(server, item 4 of Fig 4)** item to learn a transmitter address of a packet input from said ATM network and information about a transmission path through which said packet had been transmitted and to judge a destination of said packet based on a result from the learning **(col 4, lines 49-61)**, a second learning means **(ridge, item 6 of Fig 1)** to learn a transmitter address of a packet input from said ATM network and information about a transmission path to which said packet is to be output **(col 7, lines 29-34)**; and a packet scrapping judging means to compare said transmitter address of said packet input from said ATM network and information about said transmission path through which said packet had been transmitted with said transmitter address of said packet learnt by said second learning means and information about said transmission path to which said packet is to be output **(ridge packet filtering, item 6 of Fig 1, col 8, lines 15-24).** Burwell disclosed a method for verifying the source address, destination address and the protocol type of the packet to either drop or forward the packet at the ridge **(col 8, lines 25-31, col 11 lines 50-60, col 12, lines 6-15)** and further disclosed wherein, when a packet is transmitted from a first device on the ATM network side to a second device on said ATM network side **(communication between ATM user devices, col 3, lines 6-25),** a loop-back transmission mode is set to said packet to be received by said second device **(Loopback type code set in the cells, col 6, lines 32-44)** and wherein, when a packet is transmitted by a broadcast method **(broadcast server, col 5, lines 4-16)** from a first device on said layer 2 network side **(Ethernet side, item 23 of Fig 4, col 3, lines 11-25)** to a device on said ATM network side, a loop-back transmission mode is set to said

packet to be received by a second device on said ATM network side **(col 3, lines 17-25,col 9, lines 35-54),** but fails to disclose if said transmitter address of said packet input from said ATM network and information about said transmission path through which said packet had been transmitted are matched with said transmitter address of said packet learnt by said second learning means and information about said transmission path to which said packet is to be output, to scrap said packet. However Oohashi et al. disclosed a method for comparing the address of a packet received from a first routing station **(item 8 of Fig 1)** and information about the transmission path **(item 12 of Fig 1)** through which packet had been transmitted are matched learnt and matched by the second routing station **(item 9 of Fig 1)** to either discard or receive the packet **(routing decisions made by the judging means and loop-back mode set to ON/OFF, item 1 of Fig 1, para 0039-0044 and 0050-0054, Figs 1-4).** Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of comparing the address of a packet received from a first routing station and information about the transmission path through which packet had been transmitted are matched and learnt by the second routing station to either drop or forward the packets arriving at the bridge device as taught by Oohashi et al in the system of Burwell et al to verify if said transmitter address of said packet input from said ATM network and information about said transmission path through which said packet had been transmitted are matched with said transmitter address of said packet learnt by said second learning unit and information about said transmission path to which said packet is to be output, to scrap said packet. One is motivated as such in order to

improve the performance of the ATM bridge device for transmitting packets over WAN network by comparing the address of a packet received from a first routing station and information about the transmission path through which packet had been transmitted are matched and learnt by the second routing station to control the packets arriving at the bridge device.

Regarding claims 3, 12, 21, Burwell et al disclosed wherein, when a packet is transmitted from a first device on the layer 2 network side **(ATM layer on switch side, item 30 of Fig 4, col 3, lines 17-25)** to a second device on said ATM network side, a loop-back transmission mode is set to said packet to be received by said second device on said ATM network side **(col 6, lines 45-54).**

Regarding claims 4, 13, 22, Burwell et al disclosed wherein, when a packet is transmitted by a broadcast method from a first device on said ATM network side to other devices on said ATM network side **(col 3, lines 11-25, col 5, lines 34-37)** a loop-back transmission mode is set to said packet to be received by a second device on said ATM network side **(col 6, lines 45-54).**

Regarding claims 5, 14, 23, Burwell et al disclosed, wherein, when a packet is transmitted by a broadcast method from a first device on said ATM network side to other devices on said ATM network side **(col 3, lines 11-25, col 7, lines 44-50)**, a loop-back transmission mode is set to said packet to be received by a second device and a third device on said ATM network side **(col 6, lines 45-54)**.

Regarding claim 7, 16, 25 Burwell et al disclosed The ATM bridge device according to claim 1, wherein, when a packet is transmitted from a first device on said

ATM network side to a first device on said layer 2 network side **(Ethernet side, item 23 of Fig 4, col 3, lines 11-25)**, a loop route is formed on said layer 2 network side **(col 3, lines 17-25)**.

Regarding claims 8, 17, 26, Burwell et al disclosed wherein logical transmission paths **(virtual paths)** to be used for bidirectional connection in said ATM network are different from each other **(col 10, lines 10-12, col 6, lines 32-35)**.

6. Claims 9, 18, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burwell et al [US Pat: 5,818,842] and Oohashi et al. [US Pub: 2001/0021173] further in view of Rodrig et al. [US Pat: 6,256,314].

Regarding claims 9, 18, 27, Burwell et al disclosed the ATM bridge device **(item 6 of Fig 1)** that bridges ATM network and LAN **(col 4, lines 22-38)** and Oohashi disclosed a redundant route controlling routing protocol method **(para 0009-0011),** but both Burwell and Oohashi fail to disclose a VRRP (Virtual Router Redundancy Protocol) is applied in said ATM network and said layer 2 network. However, Rodrig et al disclosed a redundancy routing mechanism involving a VRRP (Virtual Router Redundancy Protocol) when multiple routers back each other up in a network for the purposes of achieving routing redundancy in the network **(col 8, lines 8-23).** Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the method of a redundancy routing mechanism involving a VRRP as taught by Rodrig et al in the system of Burwell et al as modified by Oohashi to include a VRRP (Virtual Router Redundancy Protocol) is applied in said ATM network and said

layer 2 network in the ATM bridge device. One is motivated as such in order to use VRRP mechanism in the network to achieve a seamless routing ability in the ATM bridge device in the event of a change in the network topology.

Response to Arguments

7. Applicant's argument, see remarks filed on 06/03/2009 for claims 1-27 have been fully considered and is persuasive. However a new ground(s) of rejection has been made in view of a newly found reference.

With respect to applicant's argument, see remarks filed on 06/03/2009 for claims 1,10,19 that Burwell fails to teach wherein, when a packet is transmitted by a broadcast method from a first device on said layer 2 network side to a device on said ATM network side, a loop-back transmission mode is set to said packet to be received by a second device on said ATM network side, however the examiner respectfully disagrees and points applicants to col 3, lines 11-25, col 3, lines 17-25,col 9, lines 35-54 and col 5, lines 4-15, where Burwell disclosed a method for transmitting packets in a broadcast method by a broadcast server in the ATM network (Figs 1 & 2).

A new search was performed in view of the amendments and a newly found Oohashi reference has been used in the rejections as communicated in this office action.

Conclusion

8. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached @ (571)-272-3795. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

/Venkatesh Haliyur/

Examiner, A/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2419rt Unit 2419